

What is claimed is:

1. A method of eliciting an immune response against a bovine virus comprising, combining at least one bovine viral epitope and at least one heat shock protein to form a purified epitope/heat shock protein complex, and administering an immune system stimulating amount of said purified epitope-heat shock protein complex to an animal.
5
2. The method of claim 1 wherein said bovine viral epitope further comprises a supermotif.
3. The method of claim 1 wherein said bovine viral epitope further comprises an allele specific peptide motif.
4. The method of claim 3 wherein said allele specific peptide motif is selected from the group consisting of BoLA-A11, BoLA-A20, BoLA-HD1, BoLA-HD6 and BoLA-HD7.
5. The method of claim 1, wherein said bovine viral epitope is between 5 and 25 amino acids in length.
6. The method of claim 1, wherein said bovine viral epitope is between 5 and 15 amino acids in length.
7. The method of claim 1, wherein said viral epitope is between 8 and 10 amino acids in length.
8. The method of claim 1 wherein said epitope is from a virus selected from the group consisting of bovine viral diarrhea virus, bovine respiratory syncytial virus, parainfluenza virus III, bovine corona virus, and bovine rota virus.

9. The method of claim 1 wherein said heat shock protein is selected from the group consisting of HSP 60, HSP 70 and HSP 90 families.
10. The method of claim 9 wherein said heat shock protein is gp96
11. The method of claim 1 wherein said heat shock protein is a heterologous heat shock protein.
12. The method of claim 1 wherein said heat shock protein is a homologous heat shock protein.
13. The method of claim 1 wherein said epitope/heat shock protein complex is formed in vitro.
14. The method of claim 1 wherein said epitope/heat shock protein complex is formed in vivo.
15. The method of claim 1 wherein said epitope is a recombinant epitope
16. The method of claim 1 wherein said epitope is a synthetic peptide
17. The method of claim 16, wherein said synthetic peptide is synthesized by solid phase chemistry.
18. The method of claim 1 wherein said animal is a ruminant.
19. The method of claim 18 wherein said ruminant is a Bovidae.
20. The method of claim 19 wherein said Bovidae is of the genus Bos.

21. A method for eliciting an immune response to a bovine virus comprising, combining at least one bovine virus allele specific peptide motif containing epitope of at least 8-10 amino acids long and a heat shock protein gp96 to form a purified epitope/heat shock protein complex, and administering an immune system stimulating amount of said purified epitope-heat shock protein complex to a ruminant.
- 5
22. A composition comprising, a purified epitope/heat shock protein complex containing at least one bovine virus epitope complexed with at least one heat shock protein, and a pharmaceutically acceptable carrier, diluent or excipient.
23. The composition of claim 22, wherein said bovine viral epitope further comprises a supermotif.
24. The composition of claim 22, wherein said bovine viral epitope further comprises an allele specific peptide motif.
25. The composition of claim 24, wherein said allele specific peptide motif is selected from the group consisting of BoLA-A11, BoLA-A20, BoLA-HD1, BoLA-HD6 and BoLA-HD7.
26. The composition claim 22, wherein the bovine viral epitope is between 5 and 25 amino acids in length.
27. The composition of claim 22, wherein the bovine viral epitope is between 5 and 15 amino acids in length.
28. The composition of claim 22, wherein the bovine viral epitope is between 8 and 10 amino acids in length.

29. The composition of claim 22 wherein said epitope is from a virus selected from the group consisting of bovine viral diarrhea virus, bovine respiratory syncytial virus, parainfluenza virus III, bovine corona virus, and bovine rota virus..
30. The composition of claim 22, wherein said heat shock protein is selected from the group consisting of HSP 60, HSP 70 and HSP 90 families.
31. The composition of claim 30 wherein said heat shock protein is gp96
32. The composition of claim 22, wherein said heat shock protein is a heterologous heat shock protein.
33. The composition of claim 22, wherein said heat shock protein is a homologous heat shock protein.
34. The composition of claim 22, wherein said epitope/heat shock protein complex is formed in vitro.
35. The composition of claim 22 wherein said epitope/heat shock protein complex is formed in vivo.
36. The composition of claim 22 wherein said epitope is a recombinant epitope
37. The composition of claim 22 wherein said epitope is a synthetic peptide.
38. The composition of claim 37 wherein the synthetic peptide is synthesized by solid phase chemistry.
39. A composition comprising, a purified epitope/heat shock protein complex containing:
a gp96 heat shock protein;

5 at least bovine viral epitope of 8-10 amino acids long, said epitope being from a virus selected from the group consisting of bovine viral diarrhea virus, bovine respiratory syncytial virus, parainfluenza virus III, bovine corona virus, and bovine rota virus; and

a pharmaceutically acceptable carrier, diluent or excipient.